

TECHNICAL DATASHEET

LDPE 4025



PRODUCT DESCRIPTION

LDPE 4025 can be easily processed on all types of extruders designed for polyethylene. The melt temperature is suggested to be in the range of 150 – 190°C. Excellent properties of the film are achieved with a blow - up ratio of 2.5:1 and recommended film thickness range from 15 to 40 µm.

TRPICAL APPLICATION

Shrink Film, Food Packaging Film, Blow Film and Cast Film

TYPICAL DATA

Physical	Method	Unit	Values
Density	ISO 1183	g/cm ³	0.925
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10min	4.0
Melting Temperature	ISO 3146	°C	111
Vicat Softening Temperature (A50 (50 °C/h 10N))	ISO 306	°C	92

Mechanical	Method	Unit	Values ⁽¹⁾
Tensile Modulus	ISO 527-1,-2	MPa	260
Tensile Stress @ Yield	ISO 527-1,-2	MPa	11
Tensile Strain @ Break (MD / TD)	ISO 527-1,-3	%	300 / 600
Tensile Strength (MD / TD)	ISO 527-1,-3	MPa	22 / 15
Dart Drop Impact (50 µm)	ASTM D 1709	g	100
Coefficient of Friction	ISO 8295	%	< 20

Optical	Method	Unit	Values ⁽¹⁾
Haze	ASTM D 1003	%	< 9
Gloss (20°)	ASTM D 2457	GU	> 60
(60°)		GU	> 105

⁽¹⁾ (The above properties are measured on blown film of 70µm thickness, extruded at melt temperature of 180°C and a blow up ratio of 2:1)

Note: The typical properties are not to be construed as specifications.

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HP4023W

PRODUCT DESCRIPTION

HP4023W is Low Density Polyethylene grade suitable for producing general-purpose films and contains slip and antiblock additives. It gives excellent processability and optical properties with good mechanical properties.

TRPICAL APPLICATION

HP4023W can be used for high clarity laundry bags, textile wrapping films, produce bags, zip lock bags.

TYPICAL DATA

PROPERTIES	Unit	Value ⁽¹⁾	Test Method
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	4.0	D 1238
Density @ 23°C	kg/m3	923	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ break, MD	MPa	18	D 882
		15	
Tensile Elongation @ break, MD	%	270	D 882
		540	
Tensile Strength @ yield, MD	MPa	7	D 882
		7	
1% Secant Modulus, MD	MPa	60	D 882
		170	
Dart Impact Strength	g/micron	2	D 1709
Tear Resistance MD	g/micron	5	D 1922
	g/micron	4	D1004
OPTICAL PROPERTIES ⁽²⁾			
Haze	%	7	D 1003
Gloss @ 45°	-	75	D 2457
Thermal Properties			
Vicat Softening Point	°C	91	D 1525

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HP0722N

PRODUCT DESCRIPTION

HP0722N is Low Density Polyethylene grade suitable for producing medium duty films and contains no slip and antiblock additives. It gives good toughness and optical properties in the film.

TRPICAL APPLICATION

HP0722N can be used for medium duty bags, shrink films, shopping bags, lamination films and frozen food packaging.

TYPICAL DATA

RESIN PROPERTIES	UNIT	VALUE ⁽¹⁾	ASTM TEST METHOD
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	0.75	D 1238
Density @ 23°C	kg/m ³	922	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ break, MD	MPa	26	D 882
		24	
Tensile Elongation @ break, MD	%	235	D 882
		560	
Tensile Strength @ yield, MD	MPa	12	D 882
		11	
1% Secant Modulus, MD	MPa	190	D 882
		220	
Dart Impact Strength	g/ micron	2	D 1709
Tear Resistance, MD	g/ micron	6	D 1922
	g/ micron	4	
OPTICAL PROPERTIES ⁽²⁾			
Haze	%	9	D 1003
Gloss @ 45°	-	60	D 2457
THERMAL PROPERTIES			
Vicat Softening Point	°C	95	D 1525

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HP2022 Series

HP2022 Series includes the following grades:

Grade	Anti-block (ppm)	Slip (ppm)	Applications
2022N *	None	None	Thin shrink film, lamination film, general purpose films, blending stock for other resins.
2022J	1000	750	Light produce bags, textile packaging, soft goods packaging, general purpose bags with good optics and t-shirts carrier bags.

* Must be modified with Slip/Anti-block as required.

Physical Properties		Unit	Value	ASTM Method
Melt index		g/10 min.	2.0	D-1238
Density		g/cm ³	0.922	D-1505
Vicat softening point		°C	92	D-1525
Film Properties ⁽¹⁾				
Tensile @ break	MD	MPa	21	D-882
	TD		18	
Yield point	MD	MPa	8	D-882
	TD		7	
Elongation @ break	MD	%	290	D-882
	TD		570	
1% Secant modulus	MD	MPa	160	D-882
	TD		180	
Dart drop impact		g/μm	2	D-1709
Elmendorf tear	MD	g/μm	6	D-1922
	TD		5	
Haze		%	7	D-1003
Gloss 45° angle		-	70	D-2457

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LD 1925AS

PRODUCT DESCRIPTION

LD 1925AS is a Low Density Polyethylene with a Melt Flow Rate of 1.9 g/10min (190°C/2.16kg).

LD 1925AS is mainly recommended for shrink film applications. It contains slip agent and antiblocking additives and has a suitable molecular structure to produce film with excellent mechanical properties.

LD 1925AS can be easily processed on all types of extruders designed for polyethylene. The melt temperature is suggested to be in the range of 160 – 190°C. Excellent properties of the film are achieved with a blow - up ratio of 2:1 and recommended film thickness range from 25 to 60 µm.

TRPICAL APPLICATION

Bags & Pouches, Shrink Film, Food Packaging, Surface Protection.

TYPICAL DATA

Physical	Method	Unit	Values
Density	ISO 1183	g/cm ³	0.925
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10min	1.90
Melting Temperature	ISO 3146	°C	111
Vicat Softening Temperature (A50 (50 °C/h 10N))	ISO 306	°C	94

Mechanical	Method	Unit	Values ⁽¹⁾
Tensile Modulus	ISO 527-1,-2	MPa	260
Tensile Stress @ Yield	ISO 527-1,-2	MPa	11
Tensile Strain @ Break (MD / TD)	ISO 527-1,-3	%	250 / 600
Tensile Strength (MD / TD)	ISO 527-1,-3	MPa	26 / 18
Dart Drop Impact (50 µm)	ASTM D 1709	g	110
Coefficient of Friction	ISO 8295	%	20

Optical	Method	Unit	Values ⁽¹⁾
Haze	ASTM D 1003	%	< 7
Gloss (20°)	ASTM D 2457	GU	> 50
(60°)		GU	> 100

(1) (The above properties are measured on blown film of 70µm thickness, extruded at melt temperature of 180°C and a blow up ratio of 2:1)

Note: The typical properties are not to be construed as specifications.

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HP0322N

PRODUCT DESCRIPTION

HP0322N is Low Density Polyethylene grade suitable for producing heavy-duty films and does not contain slip and antiblock additives. It gives outstanding toughness and optical properties in the film.

TRPICAL APPLICATION

HP0322N can be used for Heavy-duty bags,industrial shrink films, construction and agricultural films..

TYPICAL DATA

RESIN PROPERTIES	UNIT	VALUE ⁽¹⁾	ASTM TEST METHOD
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	0.33	D 1238
Density @ 23°C	kg/m ³	922	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ break, MD TD	MPa	31 30	D 882
Tensile Elongation @ break, MD TD	%	450 690	D 882
Tensile Strength @ yield, MD TD	MPa	11 10	D 882
1% Secant Modulus, MD TD	MPa	190 210	D 882
Dart Impact Strength	g/ micron	4	D 1709
Tear Resistance, MD TD	g/ micron g/ micron	8 6	D 1922
OPTICAL PROPERTIES ⁽²⁾			
Haze	%	11	D 1003
Gloss @ 45°	-	50	D 2457
THERMAL PROPERTIES			
Vicat Softening Point	°C	95	D 1525

TECHNICAL DATASHEET

HP0323N

PRODUCT DESCRIPTION

HP0323N is Low Density Polyethylene grade suitable for producing heavy-duty films and does not contain slip and antiblock additives. It gives outstanding toughness and optical properties in the film.

TRPICAL APPLICATION

HP0322N can be used for Heavy-duty bags, industrial shrink films, construction and agricultural films.

TYPICAL DATA

RESIN PROPERTIES	UNIT	VALUE ⁽¹⁾	ASTM TEST METHOD
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	0.3	D 1238
Density @ 23°C	kg/m³	923	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ break, MD	MPa	32	D 882
		30	
Tensile Elongation @ break, MD	%	235	D 882
		570	
Tensile Strength @ yield, MD	MPa	12	D 882
		12	
1% Secant Modulus, MD	MPa	200	D 882
		260	
Dart Impact Strength	g/ micron	2	D 1709
Tear Resistance, MD	g/ micron	2.4	D 1922
	g/ micron	3	
OPTICAL PROPERTIES ⁽²⁾			
Haze	%	15	D 1003
Gloss @ 45°	-	38	D 2457
THERMAL PROPERTIES			
Vicat Softening Point	°C	95	D 1525

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LD 0725N

PRODUCT DESCRIPTION

LD 0725N is a Low Density Polyethylene with a Melt Flow Rate of 0.75 g/10min (190°C/2.16kg), recommended for mono and multilayer blown film extrusion. LD 0725N is an additive free grade and has a suitable molecular structure to make film with excellent mechanical and optical properties. LD 0725N can be easily processed on all types of extruders designed for polyethylene.

The melt temperature is suggested to be in the range of 170 – 220°C. Excellent properties of the film are achieved with a blow-up ratio of 2:1 and recommended film thickness range from 25 to 100 µm.

TRPICAL APPLICATION

Bags & Pouches, Medium Duty Bags, Shrink Warp Film, Agricultural Film, Food Packaging Film

TYPICAL DATA

Physical	Method	Unit	Value
Density	ISO 1183	g/cm ³	0.923
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10min	0.75
Melting Temperature	ISO 3146	°C	111
Vicat Softening Temperature (A50 (50°C/h 10N))	ISO 306	°C	96

Mechanical	Method	Unit	Value ⁺¹
Tensile Modulus	ISO 527-1,-2	MPa	260
Tensile Stress @ Yield	ISO 527-1,-2	MPa	11
Tensile Strain @ Break (MD / TD)	ISO 527-1,-3	%	300/600
Tensile Strength (MD / TD)	ISO 527-1,-3	MPa	26 / 24
Dart Drop Impact (50 µm)	ASTM D 1709	g	150
Coefficient of Friction	ISO 8295	%	> 80

Optical	Method	Unit	Value ⁺¹
Haze	ASTM D 1003	%	< 8
Gloss (20°)	ASTM D 2457	GU	> 40
Gloss (60°)	ASTM D 2457	GU	> 90

⁺¹ The above properties are measured on blown film of 50 µm thickness, extruded at melt temperature of 180°C and a blow up ratio of 2:1

NOTE The typical properties are not to be construed as specifications.